



# COVID-19 RESPONSE COUNTRY REPORT

WHO AFRO REGION | CAMEROON



Cameroon is experiencing an increase in COVID-19 cases associated with the early detection of Omicron BA.4 and BA.5 sub-variants. To limit disease spread, communities and facilities undertake integrated surveillance and response.

## **AUGUST 2022**







# COVID-19 RESPONSE COUNTRY REPORT

## WHO AFRO REGION | CAMEROON

Cameroon is experiencing an increase in COVID-19 cases associated with the early detection of Omicron BA.4 and BA.5 sub-variants. To limit disease spread, communities and facilities undertake integrated surveillance and response.

## **AUGUST 2022**

## CONTENTS

Brief description of current COVID-19 situation in Cameroon       2         II. COVID-19 SITUATION UPDATE IN CAMEROON       3         III. COVID-19 SITUATION UPDATE IN CAMEROON       3         III. COVID-19 KEY PERFORMANCE INDICATORS IN CAMEROON AS OF AUGUST 28, 2022       6         IV. RESPONSE INTERVENTIONS/ACTIVITIES       9         4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE       9         4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING.       9         4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)       11         4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC).       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL).       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.       15         VI. CONCLUSION       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES.       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20	I. EXECUTIVE SUMMARY	2
III. COVID-19 KEY PERFORMANCE INDICATORS IN CAMEROON AS OF AUGUST 28, 2022       6         IV. RESPONSE INTERVENTIONS/ACTIVITIES       9         4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE       9         4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING.       9         4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)       11         4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC)       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED       15         VI. CONCLUSION       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20	Brief description of current COVID-19 situation in Cameroon :	. 2
IV. RESPONSE INTERVENTIONS/ACTIVITIES       9         4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE       9         4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING       9         4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)       11         4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC)       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED       15         VI. CONCLUSION       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20	II. COVID-19 SITUATION UPDATE IN CAMEROON	. 3
4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE       9         4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING.       9         4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)       11         4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC)       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20		
4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING	IV. RESPONSE INTERVENTIONS/ACTIVITIES	`9
4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)       11         4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC)       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.       15         VI. CONCLUSION.       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES.       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20	4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE	9
4.4. SURVEILLANCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY.       11         4.5. LABORATORIES AND DIAGNOSTICS       12         4.6. INFECTION, PREVENTION AND CONTROL (IPC)       12         4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.       15         VI. CONCLUSION.       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES.       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20	4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING	. 9
4.5. LABORATORIES AND DIAGNOSTICS124.6. INFECTION, PREVENTION AND CONTROL (IPC)124.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS144.8. OPERATION SUPPORT AND LOGISTICS (OSL)144.9. VACCINATION154.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES16V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED15VI. CONCLUSION19VII. PLAN FOR NEXT REPORTING PERIOD20VIII. APPENDIXES20Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 INCAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)202020	4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)	11
4.6. INFECTION, PREVENTION AND CONTROL (IPC)		K
4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS       14         4.8. OPERATION SUPPORT AND LOGISTICS (OSL)       14         4.9. VACCINATION       15         4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED       15         VI. CONCLUSION       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)         20       20	4.5. LABORATORIES AND DIAGNOSTICS	12
4.8. OPERATION SUPPORT AND LOGISTICS (OSL)	4.6. INFECTION, PREVENTION AND CONTROL (IPC)	12
4.9. VACCINATION154.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.16V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.15VI. CONCLUSION19VII. PLAN FOR NEXT REPORTING PERIOD20VII. APPENDIXES.20Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 INCAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)202020	4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS	14
4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES.       16         V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED.       15         VI. CONCLUSION.       19         VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES.       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022).       20		
V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED	4.9. VACCINATION	. 15
VI. CONCLUSION	4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES	. 16
VII. PLAN FOR NEXT REPORTING PERIOD       20         VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN       20         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)       20         20       20		
VIII. APPENDIXES       20         Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN         CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)         20	VI. CONCLUSION	. 19
Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)	VII. PLAN FOR NEXT REPORTING PERIOD	. 20
CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)	VIII. APPENDIXES	. 20
	CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)	
	Appendix 2: Organizational chart of the WHO Cameroon COVID-19 Incident Management System	1

World Health Organization Cameroon

### I. EXECUTIVE SUMMARY

#### Brief description of current COVID-19 situation in Cameroon

World Health Organization

Cameroon is one of the top four countries in terms of overall effectiveness in implementing COVID-19 response activities during the past three months, as measured by 20 key performance indicators (KPIs) related to all defined COVID-19 pillars. Cameroon, with an 88% score, is the second most reliable COVID-19 country program over time, closely behind Seychelles (89%). Cameroon had implemented or utilized COVID-19 awards at an overall rate of 81% (n = 7,634,267 USD) by August 31, 2022, compared to 39% (n = 1,079,907 USD) for the second trench of USG funding.

As of August 28, 2022, the epidemiological situation of COVID-19 in Cameroon can be summarized as follows: Since the notification of the first COVID-19 cases in Cameroon on March 6, 2020, there have been a total of 122, 989 confirmed cases, with a case fatality rate (CFR) of 1.6% and a recovery rate of 98.4%. Cameroon has experienced four COVID-19 resurgence waves. Cameroon has been on resurgence alert since Epidemiological Week 31 (EW31), following around 20 EWs of low incidence or control phase. The number of new cases has increased by +70.5% between EW 28 and EW 29, +173.5% between EW 30 and EW 31, +54.6% between EW 31 and EW 32, and +5.5% between EW 31 and EW 33 over the past six weeks (between EW 32 and EW 33). With 614 cases, we actually observed a 17.3% decline between EW33 and EW34. Due to this alert of an increase in COVID-19 cases, Cameroon is currently one of the countries in a situation of concern (SOC). The detection of the BA.4 and BA.5 Omicron sub variants of concern may be linked to the beginning of the fifth wave. Nevertheless, key factors that led to the resurgence are not yet fully understood. Currently, four health districts are the most affected.

Ongoing supportive efforts include, but are not limited to: 1) identifying a focal point epidemiologist with scientific writing expertise and a lab background who can assist us in polishing the draft manuscript and generating evidence to inform the response; 2) Confirm the availability of these inputs with the AFRO country offices (Ghana, Accra, for instance) so you can borrow them and ship them promptly pending Cameroon's delivery of the WSSP. Given that orders on the system don't arrive for three months, this is an alternative method. 3) Accelerate the processing of the request (already transmitted) for the extension of the project in Cameroon to 12 health districts in resurgence for 3 months at a cost of \$300,000; and 4) Provide the country office with the terms of reference and budget for the establishment of emergency medical teams. 5) Locate experts in the PEC, PCI, and Lab pillars for a two-week deployment, online coaching, or a combination of these.

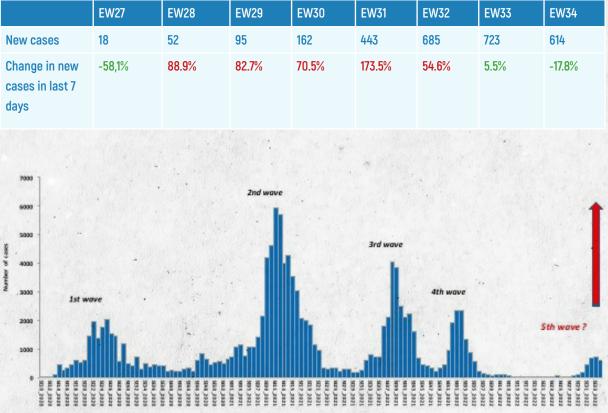
Vaccination continues to be a major challenge. We are planning for the upcoming two large immunization programs. In Cameroon, sequencing reagents for the SARS-CoV-2 genome are in short supply, and orders are receiving their inputs slowly. The deadline for the community monitoring and response project is coming up, and a lot of hotspot districts aren't part of this effort.



## **II. COVID-19 SITUATION UPDATE IN CAMEROON**

The epidemiological situation of COVID-19 in Cameroon as of August 28, 2022, might be summarized as follows: There have been a total of 122,989 confirmed cases since the first COVID-19 cases in Cameroon were reported on March 6, 2020, with a case fatality rate (CFR) of 1.6% and a recovery rate of 98.4%. There have been four COVID-19 resurgence waves in Cameroon. Following around 20 epidemiological weeks of low incidence or control phase, Cameroon has been on resurgence alert since Epidemiological Week 31 (EW31). Over the past six weeks, there has been an increase in the number of new cases of +70.5% between EW 28 and EW 29, +173.5% between EW 30 and EW 31, +54.6% between EW 31 and EW 32, and +5.5% between EW 31 and EW 33. (Between EW 32 and EW 33). We actually observed a 17.3% reduction between EW33 and EW34 with 614 cases. As a result of the alert of a rise in COVID-19 cases, Cameroon is currently one of the countries in a precarious situation (SOC). The vaccination coverage is still low: 4.3% for the total population vs. 8.8% of targeted groups are fully vaccinated. During the 4th wave, the highest positivity rate was 25.3%, and our current highest positivity rate is 9.6%, recorded in EW32/2022. A total of 16 224 COVID-19 tests (PCR and RDT) were performed in the last 30 days as of August 28, 2022.

Figure I: Epidemic curve: Distribution of COVID-19 cases and waves by epidemiological weeks from March 6, 2020 through August 28, 2022



Epidemiological week (EW)

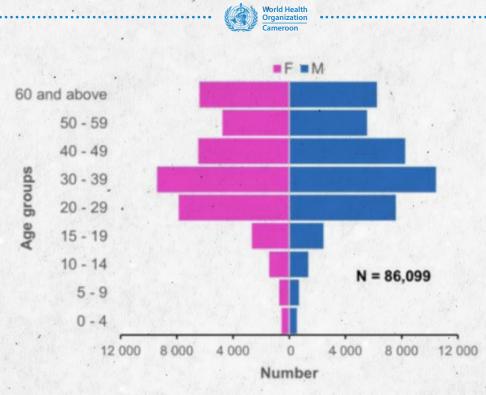


Figure II : Age and sex distribution of COVID-19 confirmed cases in Cameroon as of July 06, 2022

In general, men are more affected than women (sex ratio M.F. 1.1). However, this trend is reversed in persons under 19 years and the 30-39 age group remains the most affected.

A*	В	С	D	E	F	G	н	1
Administrative region	Cumulative cases	New cases in the last 7 days	New cases in the 7 days before the last 7 days	% Change in new cases in last 7 days ((C- D)/D)*100	Cumullative deaths	New deaths in the 7 days before the last 7 days	% Change in new deaths in last 7 days ((G- H)/H)*100	% Change in new deaths in last 7 days ((C- D)/D)*100
Adamawa	4 172	19	17	10,5%	58	0	0	-
Centre	38 239	46	62	-34,8%	521	3	1	200,0%
East	5 434	6	5	16,7%	84	0	0	-
Far-North	2 763	25	1	96,0%	64	0	0	
Littoral	34 683	118	174	-47,5%	375	0	2	-100,0%
North	2 170	2	0	100,0%	43	0	0	
North-West	12 751	342	379	-10,8%	374	5	3	66,7%
West	11 845	20	31	-55,0%	269	0	0	-
South	5 557	16	22	-37,5%	73	0	0	-
South-West	5 375	20	32	-60,0%	88	0	0	
Total	122 989	614	723	17	949	8	6	33

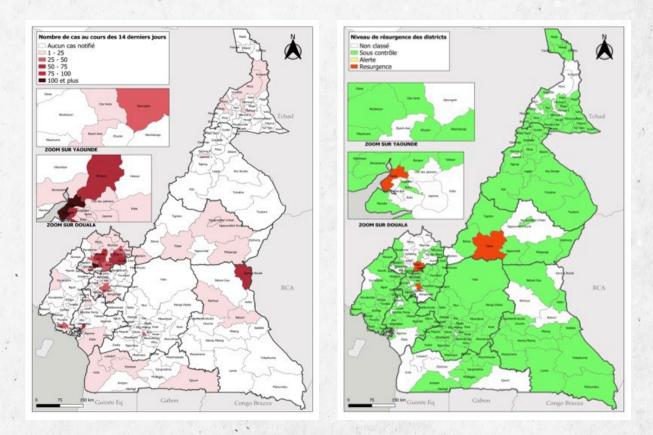
 Table 1: Geographic distribution - Number of COVID-19 cases reported weekly at sub national level

 August 28, 2022



#### A- Actives health districts

#### B- Health districts in Resurgence



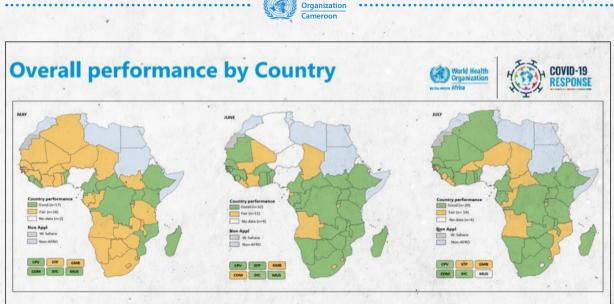
In Cameroon, 60/197 (29.9%) health districts were active in the last 14 days (10–24 August), with 1,337 new COVID-19 cases in 10 regions (Adamawa, Center, East, Far North, Littoral, North, North-West, West, South, South-West). Four health districts exceeded the resurgence threshold during EW 34. Tibati health districts in the Adamawa region, Deido in the Littoral, Ndop in the North West, and Bandjoun in the Western region.



## III. COVID-19 KEY PERFORMANCE INDICATORS IN CAMEROON AS OF AUGUST 28, 2022

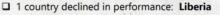
World Health Organization

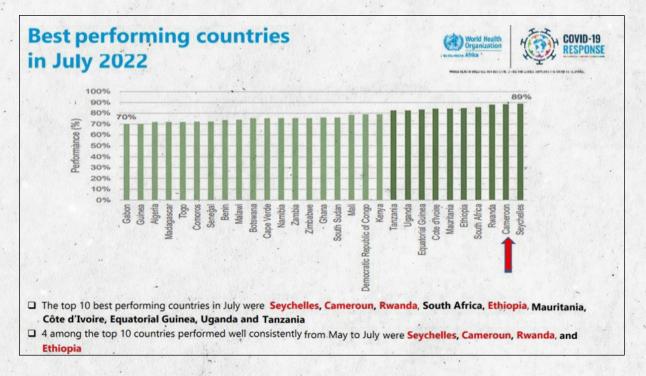
FUNCTION	SN	КРІ	КРІ
Coordination	1	Percentage of key response pillar functions filled by dedicated experts at the WCO	100%
	2	Percentage of key response pillar functions filled by dedicated experts at the Ministry of Health	100%
	3	Percentage of recommendations from joint review meetings/learning exercises implemented	100% (12/12)
	4**	Percentage of allocated fund utilized/encumbered and documented for the critical review period	81% (6, 167,098/7,634, 267)
RCCE	5	Percentage of implementation of key planned RCCE activities such as development, adaptation and rolling out of new messages to the population, engagement of most vulnerable groups,	96%
	6	Percentage of districts (or regions) sharing timely and complete epi surveillance data on COVID-19	<b>90%</b> (9/10)
	7	Percentage of monitoring of hospitalization of COVID-19 cases	100%
PoEs	8	Percentage of designated points of entry that provide access to an appropriate medical service including diagnostic facilities located to allow the prompt assessment and care of ill travellers	<b>59.7%</b> (39/49)
Laboratory	9	Specimens of confirmed cases sequenced (Yes/No)	Yes
	10	Average (median) turnaround time for COVID-19 testing using PCR? (hours)	24 hrs
	11	COVID-19 tests per 10,000 population per week	1.46%
IPC	12	Percentage of COVID-19 treatment facilities with an IPC score of 75% or higher (using the IPC scorecard)	<b>17.14%</b> (6/35)
	13	National performance of personnel protection (%)	47%
Case management	14	Mortality rate among COVID-19 patients admitted in intensive care units	<b>48.5%</b> (16/33)
	15	Percentage of COVID-19 treatment facilities with standard ICU care required for the management of severe and critical covid-19 cases	<b>34%</b> (15/44)
OSL	16	Availability of enough equipment and supplies in ICUs for the treat- ment of severe and critical COVID-19 cases	Yes
	17	Percentage of countries that timely received requested quantities of PPEs, testing kits or medical equipment	100%
Vaccination	18	Percentage of vaccine doses administered out of the vaccine doses received	<b>32.7%</b> (1,883 675/ 5,746,910)
	19	Percentage of targeted population fully vaccinated	<b>4.3%</b> (1,203,980 /27,076,681)
Research and innovation	20	Percentage of progress in the implementation of activities related to research and innovation such as on-going documentation of opera- tional activities, publications in peer-reviewed journals	<b>80%</b> (8/10)



World Health

- 10 Countries consistently performed well over time : Benin, Cameroun, Capo Verde, DRC, Ethiopia, Kenya, Madagascar, Rwanda and Seychelles
- G countries consistently performed fairly: Angola, Burundi, Chad, Congo, Eswatini and Gambia
- 4 countries best improved, moved from fair to good performance and maintained it: South Africa; Tanzania; Bostwana and Namibia





In terms of the overall performance of implementing COVID-19 response activities by country, as measured by 20 KPIs related to all COVID-19 pillars, Cameroon is among the top four countries over the past three months. Cameroon is the second most consistently performing COVID-19 country program over time, with an 88% score, just after Seychelles' 89%.



### **IV. RESPONSE INTERVENTIONS/ACTIVITIES**

World Health Organization

#### 4.1. OBJECTIVES AND STRATEGIC ORIENTATIONS OF THE COVID-19 RESPONSE

• Objectives of the Cameroon COVID-19 Response Plan for 2021 and 2022 : To consolidate the achievements of the COVID-19 response in Cameroon by March 2023; control the COVID-19 pandemic and sustainably strengthen the public health emergency preparedness and response system.

• Additional goals of the WHO AFRO USG ARPA-funded plan : Accelerate widespread and equitable access to and delivery of safe and effective COVID-19 vaccinations; Reduce COVID-19 morbidity and mortality, mitigate transmission, and strengthen health systems, including prevention, detection, and response to pandemic threats.

#### WHO COVID-19 response strategic orientations

1. Increasing oxygen and other COVID-19 case management and treatment capacities

2. Increasing vaccination uptake through community engagement, advocacy, and ownership

3. Reinforcing COVID-19 M&E, data and intelligence collection and use for guiding response actions

4. Maintaining and reinforcing critical human resource capacities to respond to the upsurge of COVID-19 cases

5. Increase in medical supplies and other materials and equipment for addressing timely operational needs.

6. Reinforce and diversify the collaboration and coordination with academia, the private sector, etc.

7. Reinforcing and scaling-up fundamental and operational research to guide response actions

8. Transitioning into the formal health system

#### 4.2. COORDINATION, PLANNING, STRATEGIC COMMUNICATION, AND MONITORING

Coordination, planning and strategic communication

• The World Health Organization is continuously providing technical support to the Ministry of Health (MoH) to revise the COVID-19 response plan for 2022 in order to develop and implement tailored strategies to ramp up COVID-19 response and strengthen the overall public health incident management system with the deployment of two experienced international experts (Incident Manager and Operation Support and Logistics Lead) as well as the deployment of WHO experts on genomic surveillance and SARS-CoV-2 whole genome sequencing. During this month, two additional experts (including one international) were deployed by WHO AFRO to support the COVID-19 vaccination pillar.

• Cameroon had implemented or utilized COVID-19 awards at an overall rate of 81% (n = 7,634,267 USD) by August 31, 2022, compared to 39% (n = 1,079,907 USD) for the second trench of USG funding.

• The in-country team is currently conducting SARS-CoV-2 variant phylogenetic and epidemiological in-depth analysis to elucidate determinants associated with the resurgence of COVID-19 cases. Epidemiological in-depth analysis to elucidate determinants associated with resurgence of COVID-19 cases :

nization

The following table presents, level of selected indicators for monitoring resurgence of COVID-19 cases in Cameroon from epidemiological week (EW) 23 to EW33, 2022

	EW23	EW24	EW25	EW26	EW27	EW28	EW29	EW30	EW31
# new confirmed cases	40	53	33	43	18	52	95	162	443
% change in new cases in last 7 days	53.8%	32.5%	-37.7%	30.3%	-58,1%	188.9%	82.7%	70.5%	173.5%
# new cases per week per million inhabitants	1.4	1.9	1.2	1.5	0.6	1.8	3.4	5.8	15.9
# tests performed (PCR and Ag RDT)*	3,413	3,692	4,353	3,194	2,691	2,226	3,556	4,282	3379
Test positivity rate	1.2%	1.4%	0.8%	1.3%	0.7%	2.3%	2.7%	3.8%	13.1%
# tests performed per 10,000 habitants per week	1.2	1.3	1.6	1.2	0.9	0.8	1.3	1.5	1.2
# new deaths	0	0	0	0	0	0	1	1, .	0
# cases hospitalized	12	3	3	3	4	7	. 13	16	35
# hospitalized cases under oxygen (ICU)	1	1	1	0 .	0	1	1	1	4
Detection of Omicron sub-variants (BA.4, BA.5)				Yes BA.4, BA.5	Yes BA.4, BA.5		•	Yes BA.4, BA.5	Yes BA.4, BA.5
In-country health districts in resurgence (N=197)				a i Seg			Yes Bangue, Djoungolo	Yes Bangue, Deido	Yes Bangue, Logbaba, Ndu, Adamaoua urbain
Neighboring countries in resurgence (N=6)		a the second	x	1. j	Yes Eq. Guinea	Yes Eq. Guinea	Yes Eq. Guinea	Yes Eq. Guinea	
Neighboring countries in alert (N=6)	•				Yes Gabon, Nigeria	Yes Gabon, Nigeria	Yes Gabon, Nigeria	Yes Gabon, Nigeria	Yes Eq. Guinea Nigeria, Gabon
Neighboring countries with >300% change in new cases during the week (N=6)				Yes CAR, Chad	Yes CAR, Chad	Yes CAR, Chad	Yes CAR, Chad	Yes CAR, Chad	Yes Chad

In addition to the ongoing SARS-CoV-2 Omicron BA.4 and BA.5 phylogenetic analysis, to elucidate determinants associated with the resurgence of COVID-19 cases in Cameroon, we consider the following key indicators as detailed in the table above: # of new confirmed cases; # of new cases per million inhabitants per week; # of tests performed (PCR and Ag RDT); Test positivity rate; # of tests performed per 10,000 inhabitants per week; # of new deaths; Detection of Omicron subvariants (BA.4, BA.5); In-country health districts in resurgence (N = 197); Neighboring countries in resurgence (N = 6); Neighboring countries in alert (N = 6); Neighboring countries with more than a 3000% increase in new cases during the week (N = 6).

After nearly 20 epidemiological weeks of low incidence (under control phase), Cameroon has been on resurgence ALERT since SE 31/2022. There is an increasing trend in the number of new cases during the last six weeks: EW 28/2022 to EW 32/2022, with a +82.7% increase; a +70.5% increase between EW 29 and EW 30, a +173.5% increase between EW 30 and EW 31, a +54.6% increase between EW 31 and EW 32, and a +5.5% increase between EW 32 and EW 33.

#### 4.3. RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)

#### Key highlights of this reporting period

• Preparation of the African traditional medicine day and advocacy for COVID-19 vaccination, to be held on the 31st of August.

• At a capacity-building workshop for the media in RCCE to promote the response to the COVID-19 pandemic and other public health emergencies in Africa, in Saly, Senegal, from August 22–25, 2022. This was funded by WHO AFRO.



Picture of participants and facilitator taken during RCCE workshop session in Saly, Senegal

• Engagement in digital communication on compliance with barrier measures, Covid-19 vaccination and adverse events following immunization (AEFI).

#### 4.4. SURVEILLÂNCE, OUTBREAK INVESTIGATION, AND POINT OF ENTRY

The following activities were carried out within this period

From the 10th to the 12th, a workshop was carried out in Ebolowa for the supervision of capacity-building exercises for mortality review. This activity has the objective of improving the documentation of deaths and identifying the local causes, together with possible preventive measures, to avoid such deaths in the future. As planned, there were 32 participants, and the project ended with a report of the activities carried out. It was funded by funds from the GIZ project.

World Health Organization





From the 1st to the 13th of August, training was conducted at the district levels of all regions nationwide on how to input data into the DHIS2 software. This had the goal of incorporating COVID-19 data into the software. At the end of the training, a report was drafted. This activity was supported using GIZ funds.

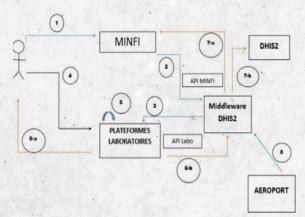




A briefing of community health workers of 10 selected health districts serving as a refresher course on the Early Warning Alert and Response System (EWARS) in the North-West Region was done. This ended with 10 districts, 20 health area supervisors, and 70CHW empowered on EWARS. The EWARS box was deployed and the software was installed. This project, which was funded by CERF, is intended to improve early detection and response to public health events in these districts.



A fourth activity which took place was the strengthening of the Incident Management System in a newly created district in the North-West Region, i.e., the Bamenda 3 health district. This was funded by us and went on from the 24th to the 28th of August.



From the 22nd to the 27th, a workshop on the implementation of the interoperability of COVID-19 laboratory platforms and the DHIS2 software, and a security check of these platforms, were held in Douala. The activity had 25 participants and was funded by WHO. This workshop made it possible to initiate the process of interoperability of multiple databases and platforms. Middleware to provide background management of the various laboratory platform interfaces is being developed under the leadership of the Ministry of Health. So, a uniform, one-ofa-kind certificate should now be made that can be checked with a unique QR code reader.

• Across all 4 epidemiological weeks, there was continuous strengthening of the surveillance and community response to COVID-19 and cholera. This was aimed at improving the eerily detection and response to ongoing epidemics. Additionally, the payment of actors involved in these activities was closely followed up and ensured.

#### 4.5. LABORATORIES AND DIAGNOSTICS

• From the 1st to the 05th of August, investigations were carried out on patients infected with sublineages of Omicron (BA.4 and BA.5). This was done to control the spread of these sub-lineages by circumscribing affected people and managing the resulting infections.

• Ongoing SARS-CoV-2 variant phylogenetic and epidemiological in-depth analysis to elucidate determinants associated with the resurgence of COVID-19 cases

• An order has been placed for SARSèCoV-2 whole genome sequencing reagents and accessories compatible with the NextSeq 550 Illumina platforms.

#### 4.6. INFECTION, PREVENTION AND CONTROL (IPC)

Within this period, the activities carried out by the IPC team included

• The continuous updating of data online on the IPC AFRO dashboard

• The assessment of the level of IPC within 35 healthcare facilities in 7 regions found only 6 healthcare facilities to have more than 75%.

World Health Organization Cameroon

• The improvement of IPC data entry in the WHO AFRO IPC Online Platform is shown below and is a screenshot of the progress made (see figure 1 below). In total, 137 submissions have been made from 131 healthcare facilities.

• From the 17th to the 19th of August, the validation of the technical report for the evaluation of the IPC Legal Framework in Cameroon was done in the city of Ebolowa. A technical report on the evaluation of the IPC legal framework in Cameroon is now available. Thus, a roadmap for the improvement of the IPC and IPC legal framework in Cameroon was adopted by the MoH and specific key activities were defined within a given timeline. This activity was funded by another partner.

• On the 22nd of August, at the Direction of Health Promotion of the MoH, 130 IPC training manuals from WHO were handed out for the training of IPC focal points in 6 regions. The National IPC Focal Point signed a discharge sheet after confirming that the number and quality of manuals were satisfactory. With WHO support, a pool of 120 IPC evaluators/trainers will be deployed in the six selected regions during the months of September, October, and November.

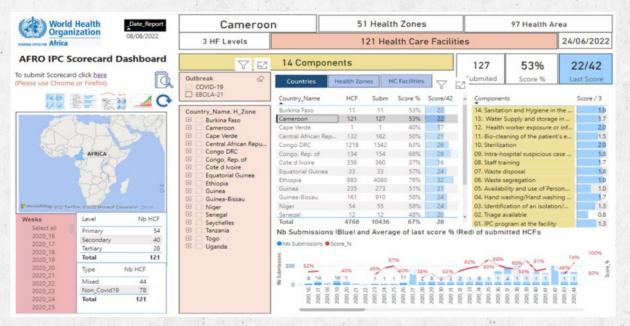


Figure showing updated AFRO IPC dashboard



WHO actively participating in the validation of the report on the assessment of IPC legal framework in Cameroon based on the recommendations of the African Union (AU).

#### 4.7. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS

During the reporting period, the key achievement regarding COVID-19 case management was :

• The capacity building for front-line health care providers in the management of severe cases of COVID-19 and the use of new medications (tocilizumab) This activity, which went on from the 23rd to the 26th of August, was led by Professor Wade (AFRO) and held in Douala.

A total of 31 participants, notably anesthetists and intensive care physicians, general practitioners, senior nurses, and senior anesthetic technicians. All modules used in the training were adopted and adapted from current WHO guidelines. The activity was funded using GIZ funds, and a quarterly plan to assess and improve knowledge was laid out.



Group picture with all participants



Theoretical phase of training



World Health



Practical phase and interactions with participants on the proper handling of respirators

## 4.8. OPERATION SUPPORT AND LOGISTICS (OSL)

During this month mains OSL activities includes:

- The construction of medical waste management sites in the East and West regions.
- To improve the response to any public health epidemics or pandemics, site visits were made with contractors to Buea, Olembe, Soa, Bertoua and Bafoussam following the reception of a copy of the bills of tender. During these visits, contractors made more detailed financial offers and contracts were written.
- An assessment of Douala International Airportas a PoE was carried out for rehabilitation purposes. The logframe of activities was conceived and the bills of tender were written. This is done to make it easier for the airport to spot any early signs of a disease outbreak or pandemic.

#### 4.9. VACCINATION

 As of August 28, 2022 in Cameroon, a total of 1 203 980 persons were fully vaccinated representing 4.37 % of total population and 8.8 % of targeted at risk prioritized groups; 32.8% of vaccine doses administered out of the vaccine doses received; WHO Cameroon continues to provide support to the COVID-19 vaccination efforts addressing vaccine hesitancy by targeting specific high risk groups and community leaders though regional and health district vaccination campaigns.

• Mini vaccination and sensitization campaigns were held for vulnerable populations such as refugees, internally Displaced Persons (IDPs), returnees, and other marginalized groups. These were carried out in the Far-North, East, North-West, Adamawa, and South-West regions, and resulted in the vaccination of 19,896 people. The activity was supported using ECHO funds.

• Additionally, there's the continuation of digital micro-planning activities and the accreditation of vaccination centres (regions, districts, and health areas) nationwide.

←	Sharon Che, 5 617 Tweets	МРН	Abonné
Q	Sharon Che, #CovidIsNotO #EndCovid23 #CmrfreeCov	)ver 7	- 24 août 🛛
	There are 4 currently ava Here's how I between do #CovidIsNo #COVID19	Covid-19 v ailablo in C long you h ses. tOver	Camoroon.
	Manufacturor	Dosos	Days botwoon
	Pfizor BioTooh	2	21 🧊
	AstraZonooa	2	24
	AstraZonooa Janozon (Johnson)	2	24 kd

Picture showing tweet of digital activities on vaccination



World Health Organization Cameroon

Sensitization during outreach activities of vulnerable populations

It's worth noting that on EW34, WHO AFRO had a call with the WCO, MOH and immunization partners in Cameroon to discuss the very low coverage in COVID-19 vaccination in the country (Cameroon is 3rd lowest coverage in the region) amidst the upsurge of cases.

Furthermore, the country has 800,000 vaccine doses expiring end of October. They are one of 4 countries in the region that have not conducted any campaigns for COVID-19 Vaccination and are only delivering vaccines through routine health services. As such, Cameroon is planning on conducting 2 mass vaccination campaigns (October and Nov 2022) but have a budget gap of \$10M. In this vein, WHO AFRO committed on behalf of the COVID-19 Vaccine Delivery Partnership to mobilize these resources and send to the county the first batch of \$6.5M by end of EW36 (already provided by USAID). There is an ongoing mobilization of HR from AFRO and ISTs to support the mass vaccination campaigns

#### 4.10. RESEARCH, INNOVATION AND CONTINUITY OF ESSENTIAL HEALTH SERVICES

orld Health

For this period, the following were done under the research and continuity of essential health services pillar

• The Cameroun in-country team submitted at least 5 abstracts on documentation of COVID-19 best practices and lessons learned in Cameroon in response to the WHO AFRO Call for abstract submission using the following link: https:// airtable.com/shrZ5Y21i2zJKeiNb

• In addition to the 8 existing manuscripts, 2 additional papers are under development

- First early detection of SARS-CoV-2 Omicron Sub-variants BA.4 & BA.5 and alert of COVID-19 resurgence in Cameroon: Phylogenetic and whole genome analysis, epidemiology and implications
- Contact tracing during the first wave of covid-19 outbreak in Cameroon: an epidemiological analytical study

• Progressive finalisation of the 8 previous manuscripts – An MoH validation meeting is schedule next week in order to be able to proceed with the journal submission

- Progressive finalization of the report of the second evaluation, still pending completion.
- Continued drafting of the article on the continuity of essential health services.



## V. CHALLENGES IN IMPLEMENTATION AND LESSONS LEARNED

The following challenges were faced over the past EWs in terms of administration and logistics:

• Pre-stocking of SARS-CoV-2 genome sequencing inputs and late acquisition of inputs when an order is placed

• The community surveillance and response initiative is scheduled to end, and several hotspot districts are not covered by the CBRI initiative.

• A predicted shortage of SARS-CoV-2 genomic sequencing reagents and consumables

• Vaccination coverage against COVID-19 remains low (4.3%) owing to vaccine hesitancy.

• Restriction on using USG funds for lab, case management, and vaccination while waiting for leadership guidance on alternative options

Furthermore, based on previous experience in Cameroon, the following factors should be considered when alerting for the resurgence of COVID-19: (1) detection of variants and lineages of concern (e.g., BA.4 and BA.5) in circulation; (2) proximity to a resurgent country; and (3) increase in the number of new cases (> 300%). In the new classification of COVID-19 alerts, these three factors should be taken into account so that action can be taken quickly and effectively.

18 COVID-19 RESPONSE REPORT AUGUST- 2022

## **VI. CONCLUSION**

Overall, during the August 2022 period, activities have been carried out to ensure the implementation of an optimal response to COVID-19. This has been done in close cooperation with the country's Ministry of Health. As a result, the public health emergency system keeps getting better, even though there are some problems.

Over the past three months, Cameroon has ranked among the top four countries in terms of the overall performance of implementing COVID-19 response activities, as measured by 20 KPIs related to all COVID-19 pillars. Cameroon is the second most consistently performing COVID-19 country program over time, scoring 88%, just behind Seychelles (89%).

Cameroon is one of the countries currently in a situation of concern (SOC). The detection of the BA.4 and BA.5 Omicron sub variants of concern may be linked to the beginning of the fifth wave. However, key determinants that contribute to resurgence are not yet fully elucidated. Four health districts are currently the most affected.

Ongoing supportive efforts include, but are not limited to: 1) identifying a focal point epidemiologist with scientific writing and phylogenetic analysis expertise who can help us polish the draft manuscript and generate evidence to support the response; 2) confirm the availability of these inputs with the AFRO country offices (such as Ghana Accra) so that you may borrow them and ship them expeditiously pending Cameroon's delivery of the WSSP. This is an alternative method, given that system orders do not arrive for three months; 3) accelerate the processing of the (already submitted) request for the extension of the project in Cameroon to 12 resurgence health districts for three months at a cost of \$300,000; 4) Provide the terms of reference and budget for the establishment of emergency medical teams to the country office; and 5) Find Case management, IPC, and Lab experts for a two-week deployment, online coaching, or any combination of these.

Vaccination continues to be a major challenge. We are preparing for the two upcoming large immunization campaigns. In Cameroon, sequencing reagents for the SARS-CoV-2 genome are in short supply, and orders are receiving their inputs slowly. The deadline for the community monitoring and response project is coming up, and a lot of hotspot districts aren't part of this effort.



World Health Organization

The subsequent steps include:

1. Monitor WHO AFRO's supportive activities, including laboratory, case management, and vaccination campaigns resources (not covered by USG funding).

2. Encouraging the extension of the communitybased surveillance and response program

3. Finalizing the epidemiological and laboratory analyses of the resurgence's causes in Cameroon in order to generate evidence to guide the response.

4. Increase hospital surveillance and the testing and response capacities for COVID-19 at the community and point of entry levels.

5. Consult with WHO Ghana Accra for the availability of the Lab's genome sequencing reagents in order to borrow and expeditiously transfer them, contingent upon Cameroon's WSSP shipment.

6. Preparations for the simulation exercise at Nsimalen and Douala International Airports.

### **VIII. APPENDIXES**

Appendix 1: STRENGTHENING COMMUNITY-BASED SURVEILLANCE AND RESPONSE TO COVID-19 IN CAMEROON. PHASE I PREMILINARY REPORT (From June and August of 2022)

**Context** : To enhance COVID-19 community screening in the African Region, in October 2021, WHO AFRO launched an eight-country initiative, scheduled to reach some seven million people over a 12-month period. The program aims to increase the testing capacity in each participating country by 40%, ensuring that they reach the WHO recommended benchmark of 10 tests per 10 000 people weekly. Until the start of this program, 20 out of 47 countries in the Region had not reached this benchmark, and 14.2% - or one in seven - COVID-19 infections were detected. First piloted in eight countries, the project in June included currently 18 countries - Botswana, Burundi, Cameroun, Comoros, Republic of Congo, the Democratic Republic of Congo, Côte D'Ivoire, Eswatini, Guinea-Bissau, Liberia, Mali, Mozambique, Namibia, Niger, Senegal, Republic of South Africa, Zambia, and Zimbabwe, delivering rapid diagnostic tests to at least 10 million people, and increasing by 40% each participating country's testing capacity. In Cameroun, since June 2022, the communitybased surveillance and response initiative (CBSRI) has been implemented in 6 targeted health districts (HD) spread over two regions: the Centre (Biyem-Assi, Cité verte, and Efoulan HDs) and the Littoral (Bangué, Déido, and Nylon HDs)

Purpose: The overall objective of the initiative is to contribute to case reduction and keep the country's districts in a COVID-19 control phase through early detection. This project aims to reduce COVID-19 cases through early detection while dealing with community transmission.

Methodology : Using a "ring strategy" the idea is to interrupt disease transmission, through active case finding by deploying teams in local communities to seek out possible contacts of people who have tested positive for COVID-19 and offer antigen rapid diagnostic tests. Pioneered for the eradication of smallpox in the latter half of the 20th century, and used during recent Ebola outbreaks in West Africa and in the Democratic Republic of the Congo. Each household within the 100 meters radius of the "circle" is scheduled to receive hygiene kits containing face masks and hand sanitizers, and anyone who tests positive will be assessed for the severity of their condition to determine whether homebased or hospital care is required.



One of the multidisciplinary rapid response teams of Bangue health district in Cameroon during a planning session to conduct indepth epidemiological and laboratory field investigations using the «ring strategy» and quickly implement control measures around each notified COVID-19 confirmed case.

To achieve the initiative's goal, a set of activities are implemented, including the active case finding, identification of contacts of each confirmed case using his community and therapeutic itinerary, screening of all contacts of these cases using rapid diagnostic antigenic tests (Ag-RDT) using the ring approach, isolation and home care for those classified as mild or asymptomatic after clinical evaluation, collection of all confirmed cases for genomic sequencing, provision of Community Infection Prevention and Control Kits (IPC), and implementation of risk communication

**Preliminary findings of the 14 weeks of the implementation** of this initiative in Cameroon showed:

A total of 228 members of interdisciplinary teams from 47 health areas distributed in 6 health districts and 2 regions were trained and equipped.

Of the 26,517 Antigenic rapid diagnostic tests (Ag-RDT) carried out in the community (34% of the tests performed countrywide), 657 were positive results, with an overall positivity rate of 2.5%. Of these 657 cases detected (about 1 in 5 cases detected countrywide), timely in-depth

epidemiological and laboratory investigations (including the ring strategy) were conducted for 542 cases (82.4%).

World Health Organization

Among cases detected, 3,579 close contacts were listed and physically identified, of which 1,856 (51.9%) voluntarily accepted to be tested. Of these contacts tested, 45 (2.4%) were positive;

624 (94.9%) of the 657 cases detected were clinically assessed for the severity of their condition to determine whether home-based or hospital care was required; 554 (88.7%) of the cases assessed were eligible for home-based treatment; and all 70 cases eligible for referral were, indeed, referred.

Infection prevention and control (IPC) kits were provided to 550/624 (88.1%) of the patients who could be isolated at home. About 2,534 eligible people were vaccinated.

A total of 1,080 cholera-related community alerts were raised. 4,253 suspected cases were notified through the active case finding; 4,243 RDTs were performed, with 91 positive RDTs. All the 1,676 positive RDT samples were taken for PCR confirmation at the laboratory. A total of 340 households were disinfected.

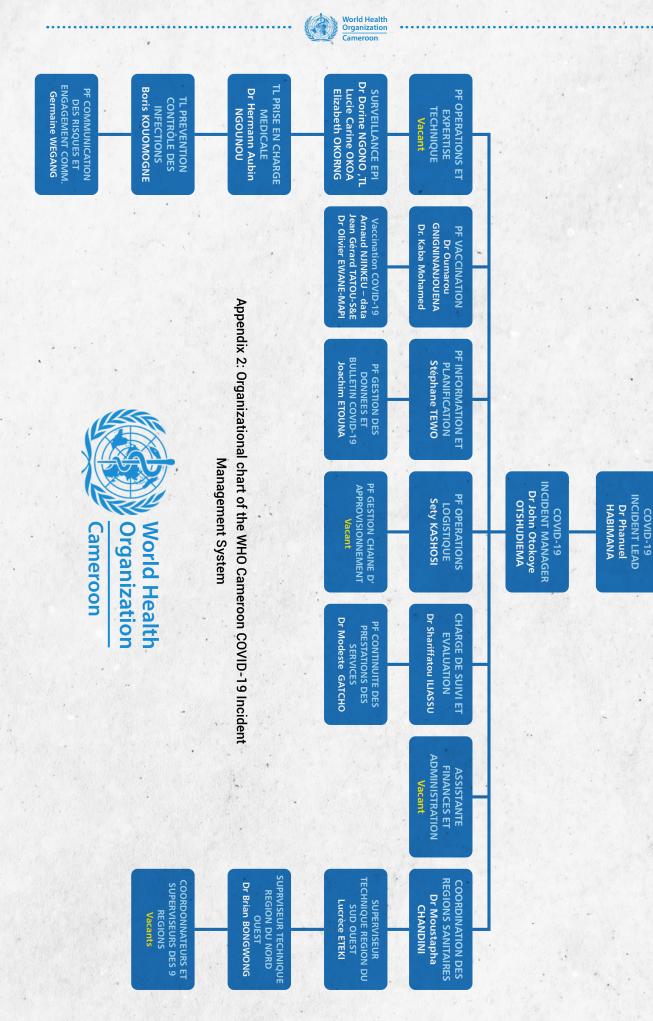


Provision of cholera infection, prevention, and control kits, as well as treatment of cases identified in the community and transfer to the Fanalex health facility in Cameroon's Efoulan health district.



Community-based surveillance and integrated response, including risk communication and vaccination of vulnerable populations living in hard-to-reach areas.

Conclusion and next steps: Despite challenges, the impact of this community initiative on the COVID-19 response in Cameroon is noticeable. Case detection and testing capacity were improved, as well as the rapid initiation of prevention and control measures. This initiative finds all its interest and deserves to be praised and extended in the districts that, in recent weeks, have experienced resurgence in order to limit the spread of the disease and control.



#### © WHO Cameroon Country Office

This is not an official publication of the World Health Organization. Correspondence on this publication may be directed to: Dr John Otshudiema – WHO Cameroon Country Office COVID-19 IMS Incident Manager, and Dr Phanuel Habimana – WHO Cameroon Country Representative.

Norld Health

Requests for permission to reproduce or translate this publication – whether for sale or for noncommercial distribution – should be sent to the same address. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate borderlines for which there may not yet be full agreement. All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or its Regional Office for Africa be liable for damages arising from its use.

#### List of contributors :

- Dr John Otokoye Otshudiema COVID-19 Incident Manager
- Dr Shariffatou Iliassu, Mr Stéphane Tewo, and Mr Joachim Etouna –M & E and Data Management
- Dr Dorine Ngono, Mrs. Lucie Okoa, Mrs. Elisabeth Okorong Surveillance Team
- Dr Oumarou, Dr Olivier Ewane, Dr Jean Gérard Tatou, Dr Kaba Mohamed, Mr Arnaud Njinkeu Vaccination Team
- Dr Hermann Ngounou, Mr Boris Koumogne, Dr Modeste Gatcho, Mrs. Germaine Wegang Case management, IPC, Continuity of Essential Health Services, and RCCE Teams
- Mr Sety Kashosi, Mr Alain Claude Biloa, Mrs. Adèle Nina Ewodo OSL Team
- Dr Brian Bongwong Field Teams
- Mr Yodoma Issaka, Mr Fridolin Yannick Mvogo, Mrs. Ange Claudine Ngoupeyou, Mrs. Nicole Abadoma and Mrs Binta Mepouyi – WHO Cameroon Administrative and Finance Teams

In addition, we acknowledge the contributions of the cluster leads for providing the weekly updates for the Cameroon Country Representative's briefs, which have been extensively used to inform the bulletin.

#### For further information, please contact :

**Dr John Otokoye Otshudiema** – WHO Cameroon COVID-19 IMST Incident Manager WHO Cameroon Country Office Contact: otshudiemaj@who.int

**Dr Phanuel Habimana** – WHO Cameroon Country Representative and Incident Lead WHO Cameroon Country Office Contact: habimanap@who.int



